

Page 1 of 1

All amounts are calculated in domestic currency.

[illegible]



O'Neal High-Performance Metals Group



Packing Slip

ORDER NO.: 80821986

FROM: CHIC

PAGE 1

CUST NUMBER: 1203820 NET WGT: 7.344 REQ.DATE: 12/08/16 CONFIRMED
SOLD TO: SHIP TO:
DART AEROSPACE LTD DART AEROSPACE LTD
1270 ABERDEEN ST 1270 ABERDEEN ST
HAWKESBURY ON HAWKESBURY ON
CANADA CN K6A 1K7 ONTARIO CANADA CN K6A 1K7

SALESPERSON: DONNA SMALLEY SHIP BY: 12/02/16
TERMS: NET 30 DAYS VIA: COMMON CARRIER
F.O.B.: SHIPPING POINT FREIGHT: PREPAID
CUST ORD NO.: PO34484 RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION WIDTH LENGTH
0001 45936 D6061-T6 SQ-RC R.156 1 SQ X .065 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	12.000 FT	12.000 FT	12.000 FT	3.276	1 ✓

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49356021 HT:24056878 PC: 1 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:1000542421

0002 41952 D6061-T6 3/8 OD X .058 WA 12 FT ML

CLN#	ORD QTY	INVOICE QTY	SHIPPED QTY	WT	PCS
	60.000 FT	60.000 FT	60.000 FT	4.068	5

** 1 TEST REPORTS REQUIRED **

** 1 CERTS REQUIRED **

ECCN: EAR99 Export License: NLR Expiration Date: 0/00/00
PO:49347470 HT:111040 PC: 3 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:402873
PO:49358768 HT:1093980 PC: 2 CUSTOMER QTY: UOM
MLT:UNITED STATES MFG:UNITED STATES SLB/CL:433920

BROKERS KUEHNE AND NAGEL LTD

AREA	TYPE OF PKG	PKGS	GRS	WEIGHT	WIDTH	LENGTH	HGHT
YRC	REDDICRATE	1.000		28.000	5.0000	170.0000	4
		1.000		28.000			

BY: MG

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



Packing
Slip

ORDER NO.: 80821986

FROM: CHIC

PAGE 2

CUST NUMBER: 1203820 NET WGT:
SOLD TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKESBURY ON
CANADA

7.344 REQ.DATE: 12/08/16 CONFIRMED
SHIP TO:
DART AEROSPACE LTD
1270 ABERDEEN ST
HAWKSURY ON
ONTARIO CANADA

CN K6A 1K7

CN K6A 1K7

SALESPERSON: DONNA SMALLEY
TERMS: NET 30 DAYS
F.O.B.: SHIPPING POINT
CUST ORD NO.: PO34484

SHIP BY: 12/02/16
VIA: COMMON CARRIER
FREIGHT: PREPAID
RELEASE NO.:
RECEIVING PHONE:

LINE ITEM DESCRIPTION
RT 000-

WIDTH LENGTH
UNLOAD TYPE: NONE SPECIFIED

Sp/6-12-7.

DATE SHIPPED _____

DATE FILLED _____

1
THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE
PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL
REVIEW.
<http://www.twmetals.com/invoice-terms.html>



O'Neal High-Performance Metals Group



**Packing
Slip**

ORDER NO.: 80821986

FROM: CHIC

PAGE 3

CUST NUMBER: 1203820	NET WGT: 7.344	REQ.DATE: 12/08/16	CONFIRMED
SOLD TO:	SHIP TO:		
DART AEROSPACE LTD	DART AEROSPACE LTD		
1270 ABERDEEN ST	1270 ABERDEEN ST		
HAWKESBURY ON	HAWKESBURY ON		
CANADA	CN K6A 1K7	ONTARIO CANADA	CN K6A 1K7
SALESPERSON:	DONNA SMALLEY	SHIP BY:	12/02/16
TERMS:	NET 30 DAYS	235 TUBEWAY	
F.O.B.:	SHIPPING POINT	CAROL STREAM	IL 60188
CUST ORD NO.:	PO34484		
VIA:	COMMON CARRIER		
FREIGHT:	PREPAID		
RELEASE NO.:			
RECEIVING PHONE:			

"TW Metals MSDS data is available on our web site at www.twmetals.com. MSDS data can be found under the Technical Resources Tab, Product Statistics & Data and the TW Metals MSDS's heading. If you do not have web site access you may telephone 610-458-1300 and we will mail or fax a copy of our current MSDS data to your location."

"CERTIFICATE OF CONFORMANCE"

"TW Metals certifies that the material supplied on this purchase order and contained in the heat/lot number referenced above has been manufactured, inspected, and tested in accordance with the material specification. These records are on file at TW Metals. Packaging material for shipments to Europe and China consists of manufactured wood products and complies with the European emergency measures for coniferous non-manufactured wood packing material"

Authorized Test Report Clerk  Date: 12/02/16

These commodities have been exported from the United States in accordance with the U.S. export control laws, export administrations regulations. Diversion contrary to U.S. law prohibited.

THANK YOU FOR THIS ORDER

TERMS AND CONDITIONS APPLICABLE TO THE SALE OF THESE PRODUCTS ARE SET FORTH ON OUR WEBSITE FOR YOUR CAREFUL REVIEW.
<http://www.twmetals.com/invoice-terms.html>

ARCONIC FORGING AND EXTRUSIONS
Lafayette Operations
3131 East Main Street
Lafayette, IN
47905-7500

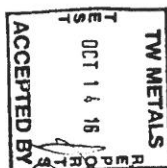
Alcoa, Inc.

Invoice To Customer

TW METALS INC
THE ARBORETUM SUITE 204
760 CONSTITUTION DR
EXTON, PA - 19341

Ship To Customer

TW METALS INC
235 W. TUBEWAY
CAROL STREAM, IL - 60188



Certified Inspection Report

Sales Order Number	Line	Customer P/O	Cert Number	Page
1000542421	No. 24.1	49356021-001 / ITEM 45936	AEP1725809	1/2
				Cert Print Date
			14-OCT-16	14-OCT-16

Quantity Shipped	Date Shipped	Item Description
339 LB	07-OCT-16	Drawn Tube by Section SECT T-1095 (1.000 x 1.000 x 0.065) 144 IN LN 6061 / T6
B/L	Item No.	W/F 0.269
2314687	G03346527	Marking CONTINUOUS; Oiling N
Delivery ID	Item No. Rev	WW-T-700/6 REV F, AM2, NOTI
11070620		ASTM B210 REV 12
Customer Part No		CP99-7-42-2005 REV 8
		AS9100 REV C
		MMS1440 REV A

Notes
OCR = .156
The material for this order was melted and manufactured in USA.
COMPOSITION NOTE: The values for 'Others Each' and 'Others Total' have met the limits as shown on this certified inspection report. Remainder is Aluminum.

Signature And Title

Melissa Griffith
DAS 14 17/10/26
9-89

Melissa Griffith
Quality Control Manager

14-OCT-16

Legal Statement

We hereby certify that, unless otherwise indicated, the material covered by this report has been manufactured, inspected, and tested in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description and that samples representative of the material met the composition and had the mechanical properties shown on the face of this certification. Also, note that mercury is not a normal contaminant in aluminum alloys and neither it nor any of its compounds are used in the manufacture of our product. This certification is not to be reproduced in partial form without prior written approval of our Quality Assurance Dept.

Quantities per Lot / Packages

Package Number	Lot Number	Quantity	UOM	Gross	Net
G17-PKG813797	24056878	25	PCS	88	81
G17-PKG813800	24056878	80	PCS	278	258

Composition Limits

Alloy	Wt %	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
6061	Min	0.40	---	0.15	---	0.8	0.04	---	---
	Max	0.8	0.7	0.40	0.15	1.2	0.35	0.25	0.15

Others Total

Alloy	Wt %	Others Each
6061	Min	---
	Max	0.05

Composition Results

Heat / Cast / Lot Number	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
8181-L34	0.6	0.15	0.26	0.04	0.9	0.05	0.03	0.02

ARCONIC FORGING AND EXTRUSIONS
 Lafayette Operations
 3131 East Main Street
 Lafayette, IN
 47905-7500

Certified Inspection Report

Sales Order Number		Customer P/O		Cert Number	Page
1000542421		49356021-001 / ITEM 45936		AEPI725809	2/2
Line No.		24.1		14-OCT-16	Cert Print Date
				14-OCT-16	

Composition Results

Heat / Cast / Lot Number	Others Each	Others Total
8181-L34	--	--

Mechanical

Test Results		Test Type		UTS - L	TYS - L	EL 4D-Long
		UOM		KSI	KSI	PCT
		# of Tests				
Test Temper	Lot Number	Piece / Test ID	Results	Results	Results	Results
T6	24056878	1-F	47.9	44.5	17.9	

Other - Test Limits

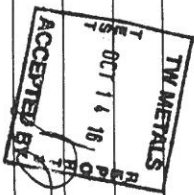
Test Type		Dimensional	
UOM			
# of Tests			
Test Temper	Lot Number	Min	Max
T6	SPEC LIMITS	P	---

Other - Test Results

Test Type		Dimensional	
UOM			
# of Tests			
Test Temper	Lot Number	Results	Results
T6	24056878	P	P

Cert Notes

Made in USA
 The test report shall not be reproduced except in full, without the written approval of the Quality Department. No alteration, addition or other change is authorized to be made to this certificate.
 The recording of false, fictitious, or otherwise fraudulent statements or entries on this certificate by any recipient may be punished as a felony under applicable law.





PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 2340

CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	CUST. ORD. NO.	PRECISION TUBE P/N
M 49358768 LINE 001	433920	24A037500580006

SOLD: TW METALS
TO 235 TUBEWAY
CAROL STREAM, IL 60188
UNITED STATES

SHIP: TW METALS
TO 235 TUBEWAY
CAROL STREAM, IL 60188
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
3204 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/6C ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID WALL .0580 +.0040 -.0040	3120 FT	10/26/16

MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	44,801	39,368	14		

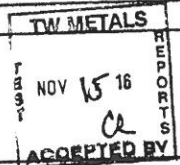
DESTRUCTIVE TESTS

FLATTENING: PASS

Comments: FAR BAA COMPLIES, DFARS BAA COMPLIES, FAR TAA COMPLIES

14
9-89

16/12/15



NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

CHEMICAL COMPOSITION									
ALLOY:	6061	HEAT:		TRACEABILITY #: 1093980					
				RAW MATL VENDOR: PTC6847 - Kaiser Aluminum					
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By: Art Onatlis
Art Onatlis
QA Manager

10/26/16

Page: 1 of 1

C

KAISER ALUMINUM FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352



CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

CUSTOMER PO NUMBER: PTC6847		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 320749	LINE ITEM: 001	SHIP DATE: 09/16/2016	KAISER LOT NUMBER: 50751-344	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 11932.000 LB	QUANTITY: 2137.000 PCS	B/L NUMBER: 005129	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		

Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-344	0001	0001	16.9	6.0	28.1	N/A	N/A	N/A
50751-344	0001	0002	17.0	5.3	26.7	NA	N/A	N/A
50751-344	0001	0003	17.3	5.8	28.2	N/A	N/A	N/A
50751-344	0001	0004	17.1	5.1	28.2	N/A	N/A	N/A
50751-344	0001	0005	17.2	5.9	28.9	N/A	N/A	N/A
50751-344	0001	0006	16.4	5.9	26.7	N/A	N/A	N/A
50751-344	0001	0007	17.3	6.3	28.0	N/A	N/A	N/A
50751-344	0001	0008	16.6	5.9	27.8	N/A	N/A	N/A
50751-344	0001	0009	17.0	6.1	27.3	N/A	N/A	N/A
50751-344	0001	0010	17.2	5.7	26.5	N/A	N/A	N/A
50751-344	0001	0011	16.5	6.0	27.2	N/A	N/A	N/A
50751-344	0001	0012	16.9	6.2	26.9	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F76008	.59	.26	.22	.04	1.00	.10	.05	.02	.00	.00	.00	.01	.03
F76012	.61	.27	.22	.04	1.01	.08	.06	.02	.00	.00	.00	.01	.02
F76085	.61	.27	.23	.04	.98	.08	.06	.03	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-16 NON-STENCILED ASTM-B221-14 ASTM-B345-11 AMS-QQ-A-200/8A TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Miscellaneous Notes

MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY
OF ITS COMPOUNDS ARE UTILITZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

Plant Serial: 00014763
Kaiser Order Number: 320749
Line Item: 001



KAISER
ALUMINUM
FABRICATED PRODUCTS

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

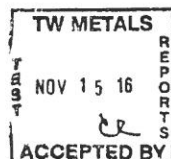
KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph



C



PRECISION TUBE CO.
287 WISSAHICKON AVE.
NORTH WALES PA 19454

Control No: 930

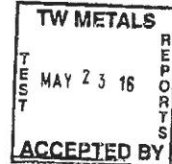
CERTIFIED TEST REPORT

CUSTOMER PURCHASE ORDER NO.	CUST. ORD. NO.	PRECISION TUBE P/N
49347470 LINE 001	402873	24A037500580006

SOLD: TW METALS
TO 235 TUBEWAY
CAROL STREAM, IL 60188
UNITED STATES

SHIP: TW METALS
TO 235 TUBEWAY
CAROL STREAM, IL 60188
UNITED STATES

QUANTITY ORD.	DESCRIPTION	QTY. SHIPPED	DATE SHIPPED
4704 FT	METAL - 6061 ALUM TEMPER - T6 SPEC - AMS 4082P AMS-WW-T-700/6C ASTM-B-210-12 LENGTH - 12 FT LGTH TOL +.1250 IN -.0000 IN SHAPE - ROUND FINISH - STRAIGHT EXACT LENGTHS OD .3750 +.0030 -.0030 ID .3580 +.0040 -.0040 WALL .0580 +.0040 -.0040	4992 FT	05/17/16



MECHANICAL PROPERTIES

SAMPLE #	TENSILE STRENGTH (P.S.I.)	YIELD STRENGTH (P.S.I.)	ELONGATION IN 2 INCHES (%)	ROCKWELL HARDNESS	AVERAGE GRAIN SIZE (MM.)
1	45,627	40,428	17		

DESTRUCTIVE TESTS

FLATTENING: PASS

Comments:

DAS
14
9-89 16/12/15

NON-DESTRUCTIVE TESTS

EDDY CURRENT: PASS

CHEMICAL COMPOSITION

ALLOY: 6061	HEAT:	TRACEABILITY #: 111040							
		RAW MATL VENDOR: PTC1425 - Kaiser Aluminum							
	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Min	0.40		0.15		0.80	0.04			Rem.
Max	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	
OTHER ELEMENTS: 0.05 MAX EACH / 0.15 MAX TOTAL									

We hereby certify that the material has been manufactured and tested in accordance with the requirements of the applicable specifications and descriptions set forth on Precision Tube's sales acknowledgement. During the manufacturing, testing and inspection, the product did not come into direct contact with mercury or any of its compounds, nor with any mercury containing device employing a single boundary containment. Test results indicate that the material is compliant with the current revision of the RoHS Directive (2011/65/EU).

Melted and Manufactured in USA
QMS Registered to ISO 9001: 2008

By:
Art Onaitis
QA Manager

05/17/16

Page: 1 of 1

UNB

KAISER ALUMINUM

FABRICATED PRODUCTS

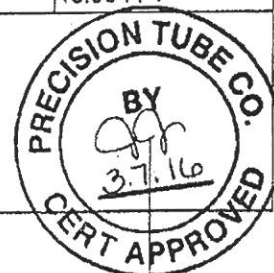
KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

TW METALS
TEST
MAY 23 16
ACCEPTED BY

CUSTOMER PO NUMBER: PTC1425		CUSTOMER PART NUMBER: SPIRIT-371850		PRODUCT DESCRIPTION: 5.400 LB/PC .500 LB/-0 LB 1.312 OD X .085 WALL ESRT	
KAISER ORDER NUMBER: 319936	LINE ITEM: 001	SHIP DATE: 02/26/2016	KAISER LOT NUMBER: 50751-320	ALLOY: 6061	TEMPER: O
WEIGHT SHIPPED: 16980.000 LB	QUANTITY: 3057.000 PCS	B/L NUMBER: 004962	DIAM/DAF/THKNS:	WIDTH:	LENGTH: 13.984 FT
SHIP TO: PRECISION TUBE CO 287 WISSAHICKON AVENUE N. WALES, PA 19454 USA			SOLD TO: MUELLER INDUSTRIES, INC PRECISION TUBE 8285 TOURNAMENT DRIVE STE. 150 MEMPHIS, TN 38125 USA		



Actual Physical Properties

REFERENCE	DASH#	SAMPLE#	UTS (KSI)	YTS (KSI)	%Elong in 2	HARDNESS	CONDUCT.	BEND
50751-320	0001	0002	17.5	5.1	27.4	NA N/A	N/A	N/A
50751-320	0001	0003	17.7	5.9	27.6	NA N/A	N/A	N/A
50751-320	0001	0004	18.1	6.2	25.2	NA N/A	N/A	N/A
50751-320	0001	0005	17.7	4.8	27.9	NA N/A	N/A	N/A
50751-320	0001	0006	18.1	5.6	27.0	NA N/A	N/A	N/A
50751-320	0001	0007	17.7	5.3	28.5	NA N/A	N/A	N/A
50751-320	0001	0008	18.0	5.5	29.2	NA N/A	N/A	N/A
50751-320	0001	0009	17.3	4.5	26.6	NA N/A	N/A	N/A
50751-320	0001	0010	17.0	5.9	27.9	NA N/A	N/A	N/A
50751-320	0001	0011	18.0	6.1	28.7	NA N/A	N/A	N/A
50751-320	0001	0012	17.3	5.8	27.2	NA N/A	N/A	N/A
50751-320	0001	0013	17.3	5.0	28.3	NA N/A	N/A	N/A
50751-320	0001	0014	17.7	6.3	27.2	NA N/A	N/A	N/A
50751-320	0001	0015	17.5	6.0	28.2	NA N/A	N/A	N/A
50751-320	0001	0016	16.8	5.6	25.4	NA N/A	N/A	N/A
50751-320	0001	0017	17.0	5.0	25.8	NA N/A	N/A	N/A
50751-320	0001	0001	17.0	5.9	27.9	N/A	N/A	N/A

Chemical Composition (wt%), Aluminum Remainder

LIMITS	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Pb	Bi	Zr	Ea	Tot
Maximum	0.80	0.70	0.40	0.15	1.20	0.35	0.25	0.15	NA	NA	NA	0.05	.15
Minimum	0.40	0.00	0.15	0.00	0.80	0.04	0.00	0.00	NA	NA	NA	0.00	.0
F75645	.60	.30	.22	.05	.98	.10	.06	.02	.00	.00	.00	.01	.02
F75642	.61	.32	.22	.05	.96	.09	.06	.02	.00	.00	.00	.01	.02

Applicable Requirements:

ASTM-B241-12 NON-STENCILED ASTM-B221-13 ASTM-B345-11 AMS-QQ-A-200/8 97(R07) TYPE I
UNS#A96061 Also conforms to EN 10204 3.1

Plant Serial: 00013627
Kaiser Order Number: 319936
Line Item: 001

KAISER

ALUMINUM

FABRICATED PRODUCTS

KAISER ALUMINUM
FABRICATED PRODUCTS, LLC
2425 STEVENS DRIVE
RICHLAND, WA 99352

Best in Class

CERTIFIED TEST REPORT

<http://Online.KaiserAluminum.com>

Miscellaneous Notes

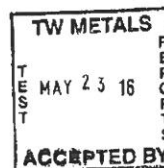
MANUFACTURED IN USA MELTED IN USA
MERCURY IS NOT A NORMAL BACKGROUND ELEMENT IN ALUMINUM ALLOYS. NEITHER MERCURY NOR ANY OF ITS COMPOUNDS ARE UTILIZED BY KAISER ALUMINUM IN THE MANUFACTURE OF THIS MATERIAL.

CERTIFICATION

Kaiser Aluminum Fabricated Products, LLC hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms and conditions of sale. Test reports are on file, subject to examination.

JOSEPH AMES, QUALITY MANAGER

Jph



Plant Serial: 00013627

Kaiser Order Number: 319936

Line Item: 001

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6 T0.375 W.058 PO / BATCH NO.: 34484/136327
 DATE: 16/12/15

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 60'
 QUANTITY INSPECTED: 60'
 QUANTITY REJECTED: _____

THICKNESS ORDERED: .058
 THICKNESS RECEIVED: .053
 SHEET SIZE ORDERED: _____
 SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N <input type="checkbox"/>	
CORRECT FINISH	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORROSION	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORRECT GRAIN DIRECTION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>6061T6</u>
CORRECT THICKNESS	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>.058</u>
PHOTO REQUIRED	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
CORRECT MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>ASTM-B-210-12</u>
CORRECT REF # TO LINK CERT	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>HEAT # 111090 1093980</u>
CORRECT MATERIAL IDENTIFICATION	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>M6061T6 T.375 W.058</u>
CORRECT M# ON THE MATERIAL	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	<u>M136327</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input type="checkbox"/> N <input checked="" type="checkbox"/>	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW				
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D
SIZE OF TEST SAMPLE				
HARDNESS / DUROMETER READING				

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>14 9-89</u> DATE: <u>16/12/15</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M6061T6.TS1.000W.065 PO / BATCH NO.: 34484/136329
 DATE: 17/10/26

MATERIAL CERT REC'D: YES THICKNESS ORDERED: .065
 QUANTITY RECEIVED: 12 THICKNESS RECEIVED: .065
 QUANTITY INSPECTED: 12 SHEET SIZE ORDERED: _____
 QUANTITY REJECTED: _____ SHEET SIZE RECEIVED: _____

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y <input checked="" type="checkbox"/> N	
CORRECT FINISH	Y <input checked="" type="checkbox"/> N	
CORROSION	Y <input checked="" type="checkbox"/> N	
CORRECT GRAIN DIRECTION	Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N	<u>6061T6</u>
CORRECT THICKNESS	Y <input checked="" type="checkbox"/> N	<u>.065</u>
PHOTO REQUIRED	Y <input checked="" type="checkbox"/> N	
CORRECT MATERIAL	Y <input checked="" type="checkbox"/> N	<u>Acceptable by Engineering See certificate</u>
CORRECT REF # TO LINK CERT	Y <input checked="" type="checkbox"/> N	<u>HEAT#24056878</u>
CORRECT MATERIAL IDENTIFICATION	Y <input checked="" type="checkbox"/> N	<u>M6061T6.TS1.000W.065</u>
CORRECT M# ON THE MATERIAL	Y <input checked="" type="checkbox"/> N	<u>136329</u>
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y <input checked="" type="checkbox"/> N	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y <input checked="" type="checkbox"/> N	

CUT SAMPLE PIECE OF MATERIAL AND PREFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>17/10/26</u>	DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID PO34484

Purchase Order Date 11/30/2016

PO Print Date 11/30/2016

Page Number 1 of 5

Order From :

VU-TWM001

Ship To : DART AEROSPACE LTD

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

E-MAILED

DEC 01 2016

Contact Name

Vendor Phone

585 768 5600

Ship To Contact

Ship To Phone

Ship Via:

YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

Line Nbr	Reference Vendor Part Number Line Comments Delivery Comments	Description/ Mfg ID	Req Date/ Taxable Promise Date	CD	Req Qty/ Unit of Measure	PO Unit Price	Extended Price
1	M304TR0.750W.049	304 RD Tube .750 x .049W	12/8/2016 Yes 12/8/2016		60.00 f	\$2.10	\$126.00
MATERIAL: AISI 304/316 SA SEAMLESS ROUND TUBING AS PER ASTM A213 OR AMSE SA213 OR ASTM A269							
Line Total:							\$126.00
2	M4130NT0.500W.083	4130 RD tube .500 x .083W	12/8/2016 Yes 12/8/2016		20.00 f	\$4.00	\$80.00
MATERIAL: AISI 4130N SEAMLESS STEEL TUBING AS PER MIL-T-6736 OR AMS 6371/6360/6361 6362/6373/6374							
Line Total:							\$80.00

rec'd 19.833
SP/6-12-6

Note:

11/30/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34484**

Purchase Order Date 11/30/2016

PO Print Date 11/30/2016

Page Number 2 of 5

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

3 M4130NT0.750W.049

4130 RD Tube .750
x.049W

12/8/2016

40.00

\$6.00

\$240.00

Yes

12/8/2016

f

MATERIAL: AISI 4130N SEAMLESS STEEL TUBING
AS PER MIL-T-6736 OR AMS 6371/6360/6361
6362/6373/6374

new 47.833

Line Total:

\$240.00

4 M6061T6TS1.000W.065

6061T6 SQ TUBE 1.00 x
1.00 X 0.065w
ROUNDED CORNERS

12/8/2016

12.00

\$9.80

\$117.60

Yes

12/8/2016

f

MATERIAL: 6061-T6 OR 6061-T651/T6510/T6511/T62
SQUARE TUBING PER AMS-QQ-A-225/8 OR AMS 4117/
4128/4115/4116 OR PER AMS-QQ-A200/8 OR AMS 4160

Sp/6-12-7.

Line Total:

\$117.60

Note:

11/30/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34484**

Purchase Order Date 11/30/2016

PO Print Date 11/30/2016

Page Number 3 of 5

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone 585 768 5600

Ship To Contact

Ship To Phone

Ship Via: YRC COLLECT

Ship Acct:

Buyer

Chantal Lavoie

Customer POID

Customer Tax #

10127-2607

Terms

Net 30

Currency

USD

FOB

FCA - (Free Carrier)

5	M6061T6T0.3125W.058	ALUM TUBE .3125 x .058w	12/8/2016	40.00	\$2.50	\$100.00
			Yes			
			12/8/2016			

Handwritten signature: new 30f.

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total: **\$100.00**

6	M6061T6T0.375W.058	6061-T6 RD Tube .375 x.058W	12/8/2016	60.00	\$2.15	\$129.00
			Yes			
			12/8/2016			

Handwritten signature: 88/6-12-7.

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total: **\$129.00**

Note:

11/30/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
Tel: 613 632 9577
Fax: 613 632 1053

PURCHASE ORDER

Purchase Order ID **PO34484**

Purchase Order Date 11/30/2016

PO Print Date 11/30/2016

Page Number 4 of 5

Order From : VU-TWM001
TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

Ship To : DART AEROSPACE LTD
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name
Vendor Phone 585 768 5600

Ship To Contact
Ship To Phone
Ship Via: YRC COLLECT
Ship Acct:

Buyer Chantal Lavoie
Customer POID
Customer Tax # 10127-2607
Terms Net 30
Currency USD
FOB FCA - (Free Carrier)

7	M6061T6T0.500W.058	6061-T6 RD Tube .500 x.058W	12/8/2016	120.00	\$1.75	\$210.00
			Yes 12/8/2016	f		

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total: \$210.00

8	M6061T6T0.625W.065	6061-T6 RD Tube .625 x.065W	12/8/2016	40.00	\$3.15	\$126.00
			Yes 12/8/2016	f		

MATERIAL: 6061-T6/T62/T6510/T6511 SEAMLESS TUBING
AS PER WW-T-700/6 OR QQ-A-200/8 OR QQ-A-225/8 OR
AMS 4080 OR AMS 4082 OR AMS 4083 OR ASTM B210 OR
ASTM B241

Line Total: \$126.00

SP 16-12-6

Note:

11/30/2016



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
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PURCHASE ORDER

Purchase Order ID PO34484

Purchase Order Date 11/30/2016

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Page Number 5 of 5

Order From :

TW METALS
PO BOX 933014
ALTANTA, GA 31193-3014
US

VU-TWM001

Ship To : DART AEROSPACE LTD

1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
CANADA

Contact Name

Vendor Phone

585 768 5600

Ship To Contact

Ship To Phone

Ship Via:

Ship Acct:

YRC COLLECT

Buyer

Customer POID

Customer Tax #

Terms

Currency

FOB

Chantal Lavoie

10127-2607

Net 30

USD

FCA - (Free Carrier)

9 71401-45

PROCUREMENT
QUALITY CLAUSES

12/8/2016

1.00

\$0.00

\$0.00

No

12/8/2016

Procurement Quality Clauses

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

Line Total:

\$0.00

PO Total:

\$1,128.60

Note: Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Change Nbr:

1

Change Date: 11/30/2016